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Exploring the Perceived Effectiveness of Applied Theater as a Maternal Health Promotion Tool in Rural Zambia

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Abstract

In the current study, we aimed (a) to extend the previous research conducted in Kalomo District on the psychosocial factors that influence women's intention to utilize maternal health care services (MHS) and (b) to explore community members' perceptions of the use of a theater-based health promotion program to positively influence these factors among pregnant women. Semistructured, in-depth interviews were conducted with 44 respondents, and confirmed the importance of knowledge, perceived behavioral control, attitudes, social norms, and risk perception as influences on women's health care utilization. The majority of respondents were positive about the use of theater interventions in improving maternal health care-seeking behavior. The behavior change methods proposed to incorporate in theater plays were seen as appropriate and useful to convey health-related information in theater plays, in particular if the main character was an identifiable role model. Discussion focuses on the unique contributions and possibilities of utilizing theater in (maternal) health promotion.

Keywords

maternal health; applied theater; modeling; risk perception; narratives; perspective taking; health care utilization; health promotion; qualitative research; sub-Saharan Africa

Although Zambia has been experiencing declines in maternal mortality ratio (MMR), the MMR remains high at 398 deaths per 100,000 live births (Central Statistics Office [CSO], Ministry of Health, & ICF International, 2014), and it is one of the highest in sub-Saharan Africa (Hogan et al., 2010; World Health Organization [WHO], 2014). Because up to 17% of maternal deaths occur during childbirth itself and up to 71% in the postpartum period, it has been argued that many maternal deaths could be prevented if women would deliver their babies in facilities with adequate resources and skilled staff to assist with deliveries (Hogan et al., 2010; WHO, 2014). However, it is estimated that in Zambia, up to 36% of pregnant women do not receive skilled assistance during childbirth, with the number increasing up to 52% in rural areas. Furthermore, only 56% of women in rural areas deliver in health facilities, compared with 89% of those in urban areas (CSO, 2014).

Reasons identified in previous studies for the low rates of maternal health care utilization include poor quality of health care services—such as lack of staff or medication—long distances, lack of financial means, and poor infrastructure (Khan, Wojdyla, Say, Gülmezoglu, & Van Look, 2006; Sialubanje, Massar, Hamer, & Ruiter, 2014a). In addition, in

previous studies by Sialubanje et al. (2014a, 2014b; Sialubanje, Massar, Hamer, & Ruiter, 2015; Sialubanje, Massar, van der Pijl, et al., 2015), several psychosocial variables were identified, which influence both women's and their husbands' decisions to utilize maternal health care services (MHS) in Kalomo District, Zambia. For example, women's perceived behavioral control to overcome the various physical and economic barriers that prevent them from using MHS was shown to be a crucial factor affecting women's intention to utilize MHS. Other factors included women's negative attitude toward the quality of the MHS facilities, positive attitude toward traditional birth attendants (TBAs), underestimated personal risk of complications, and social influence from their husband and other community members in the decision-making process (Sialubanje et al.,

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2014a, 2014b; Sialubanje, Massar, Hamer, & Ruiter, 2015; Sialubanje, Massar, van der Pijl, et al., 2015).

The current study aims (a) to extend the previous research conducted in Kalomo District to understand which psychosocial factors influence women's intention to utilize MHS and (b) to explore community members' thoughts on the use of a community and theater-based health promotion program to positively influence these factors among pregnant women and increase their intentions to utilize MHS. A theoretical and empirical foundation has been shown to be crucial to the development of effective health promotion programs (Bartholomew Eldredge et al., 2016), including the development of theater performances in health promotion interventions.

Applied Theater and Methods of Behavior Change

Community-based—or *applied*—theater is used in developing countries to provide health education, with the aim to reduce health risks (Bosompra, 2008; Ghosh, Patil, Tiwari, & Dash, 2006). It can be described as theater that is created for a specific need, which usually takes place in nontheater spaces, and it is motivated by a desire to promote health behavior change. Several health issues have been the focus of theater-based interventions, including malaria (Ghosh et al., 2006), HIV/AIDS (Bosompra, 2008), and traumatic brain injury (Kontos et al., 2012). Because theater is unique in its ability to involve the audience and its possibility for discussions and participation, theater-based health promotion efforts can achieve changes in knowledge and attitudes, as well as behaviors. For example, Bosompra (2008) showed that individuals attending an HIV/AIDS prevention drama reported increased (risk) knowledge and attitudes toward prevention of HIV/AIDS and intentions to practice safer sexual behavior.

Several intrinsic qualities make theater a suitable educational medium for health promotion in developing rural areas: A play can be delivered in different places, delivering standardized, consistent information (scripts) in different settings, while maintaining contextual and cultural sensitivity (Prentki & Preston, 2009). Applied theater is characterized by immediate interpersonal contact between audience and performers, and has a highly interactive nature, supporting suggestions and feedback from the audience (Boal, 1995). Furthermore, theater is a public medium and a highly suitable health education tool in areas with low literacy rates and, unlike radio and television, suitable in areas with unreliable or absent electricity (Sequin & Rancourt, 1996). Such interactive interventions have been shown to be more effective than purely didactic methods (e.g., Fredland, 2010). Furthermore,

theater is cost effective (one theater play can be attended by many people), and it can be targeted at specific groups, which makes it possible to evaluate its impact, both of which are important characteristics for intervention implementation (Bartholomew Eldredge et al., 2016).

Community theater often applies several theoretical methods of behavior change simultaneously: modeling, perspective taking, resistance to social pressure (social inoculation), and scenario-based risk information being the most relevant in the current context (for a complete overview, see Bartholomew Eldredge et al., 2016; Kok et al., 2016). These methods have the potential to target—and change—the crucial determinants of women's behavior identified in previous studies (Sialubanje et al., 2014a, 2014b; Sialubanje, Massar, Hamer, & Ruiter, 2015; Sialubanje, Massar, van der Pijl, et al., 2015), provided that the use of these methods adheres to the method's theoretical conditions for effectiveness (see Kok et al., 2016). In the current research, we will examine how our respondents perceive the effectiveness of these four behavior change methods in theater performances, by presenting them with storylines in which we have incorporated these methods.

First, *modeling* is a behavior change method derived from Bandura's (1986) social cognitive theory, and it is often used to increase individuals' perceived behavioral control. This theory states that modeling will be effective if a role model is selected who is respected by the target audience, is struggling with the performance of the desired behavior, but ultimately succeeds and is positively rewarded (for examples, see Bartholomew Eldredge et al., 2016). Second, a storyline incorporating *perspective taking* will be presented to the respondents. This method is often used to influence individuals' attitudes, because it promotes the adoption of another individual's perspective, thereby creating empathy, which, in turn, is conducive to health-promoting behaviors. Third, we will explore the value of adding a component of *social inoculation* in theater performances. This method aims to strengthen individuals' resistance to negative social influence by "inoculating" them, through providing possible examples of peer pressure and providing solutions to counter it (e.g., Evans & Neighbors, 2014). Last, *scenario-based risk information* should increase individual risk perception among the audience members, and we will ask our respondents about the use of such narratives in theater plays. Presenting health risk information in the form of personal testimonials or narratives has been shown to increase individuals' risk perceptions and behavioral intentions to reduce their personal risk (De Wit, Das, & Vet, 2008), but it is important that solutions for coping with these risks are also provided.

The Current Research

The effectiveness of health promotion programs increases if important stakeholders are involved from the start in the development of the intervention (Bartholomew Eldredge et al., 2016). Therefore, using semistructured in-depth interviews (IDIs), in the current research, we investigated the perceptions of multiple groups of individuals involved in MHS utilization in Zambia: pregnant women, their husbands, health care workers, community leaders (headmen), and members of existing theater groups. The aims of the current research are twofold: First, we investigated the target groups' perceptions of the problem of low MHS utilization in Kalomo District, as well as of the psychosocial factors influencing women's intention to utilize MHS. And second, we evaluated the perceived effectiveness of including the four methods of behavior change mentioned above in theater plays. We provided the respondents with brief storylines and asked them to evaluate these for being likely to, for example, create increased risk perceptions. Moreover, we asked the actors about the possibility of including such methods or storylines in theater plays in Kalomo District.

Method

Study Design and Setting

Interviews were conducted in nine health centers of Kalomo District, Zambia, which is one of the rural districts in the southern part of the country covering a total surface area of 15,000 km². It has an estimated population of 275,779 people (Central Statistical Office Zambia, 2010a), the majority (92%) of who live in rural areas with subsistence farming and cattle rearing being the major economic activity. The health system comprises two hospitals, 40 health centers, and an unrecorded number of health posts. Although most health centers provide basic emergency obstetric and newborn care services, less than 30% of the women in Kalomo receive assistance from a skilled birth attendant in a health facility (CSO, 2014). The Ministry of Health Research and Ethics Committee in Zambia provided ethical approval for the procedure used in this study.

Study Population and Data Collection

The interviews were conducted with 44 individuals—18 pregnant women, seven husbands, six health care workers, four community leaders (headmen), and nine theater group members. Respondents were recruited at nine health center catchment areas (Muzya, Kanchele, Mayoba, Choonga, Mawaya, Nazilongo, Monde, Mukwela, and Namwianga). We used a purposeful sampling technique, and we invited individuals most likely to provide rich information about

the topics at hand: Pregnant women, their spouses, and nurses were approached and invited to participate at the health centers. If they agreed to participate and were available, the interview subsequently commenced in a quiet area in or around the health center. If they did not have time, an appointment was made for a later time at the same health center. Theater group members and community headmen were contacted by the second author, who was affiliated with the Kalomo District Medical Office (as an MD). If these individuals agreed to participate, they were invited to one of the health centers closest to their location for the interview.

Materials and Procedure

The research was conducted within a collaborative insider-outsider team (see Muhammed et al., 2015): Every interview was conducted by the third author, who at the time of this research was a master's student from a European university (an "outsider"). Before and during these interviews, she was informed and assisted by the second author, who lives and works in Kalomo District (an "insider"). Furthermore, during the interviews, she was assisted by a trained translator, who had also assisted in previous research projects in the area (an "insider"). All interviews were recorded with a digital voice recorder after permission from the respondent, and supplemented by handwritten notes of the researchers. Depending on the respondent's proficiency in English, questions were translated from English to the native language Tonga, and respondents' answers were translated from Tonga to English. The researcher who conducted the interviews was not able to verify these translations, which is why a member of the research team who spoke fluent Tonga and lived in the district randomly and unobtrusively checked in on the interviews. All respondents provided their consent before the interviews commenced. Husbands of pregnant women were interviewed separately from their spouses.

Before commencing the interviews, a demographic measure was administered.¹ In the interviews, a specific part was addressed to members of the theater groups only, focusing on the health issues addressed in their plays, their group organization, and their working methods. Example questions from these sections of the interviews are as follows: "Do you think pregnant women in the audience should make suggestions to the actors about what risk situation they would like to see in the play?" With regard to the content of the interviews, all respondents were asked about pregnant women's intentions to utilize MHS, as well as the various psychosocial variables affecting this utilization. Depending on the respondent, these questions were phrased slightly differently. For example, "Which barriers or problems do you [your wife/pregnant women in your community] perceive in delivering in the maternity ward?"

This question was followed up by “Do you feel confident in overcoming these barriers?” The last part of the interview dealt with perceptions of the respondents on the theory-based methods and their theater applications. Storylines for each method were read to the respondents, who were then asked for their opinions and suggestions about each method. For example, “Do you think that listening to and seeing how another woman has overcome these problems in the past could improve your confidence in overcoming these same obstacles?” and “Which relevant people should be invited to see the theater play?”² The questions about the development, content, and performance of existing theater plays were only directed at the theater group members. An example question is, “Can you provide an example of a theatre play you (helped) developed about a health issue?”

Data Analysis

The English sections of the audio recordings were transcribed, and compared with the handwritten field notes that the researchers took during the interviews. After proof reading and making corrections, the transcripts were analyzed using Nvivo 10. Data were analyzed using a directed content analysis approach (Hsieh & Shannon, 2005). In this approach, categories are derived from theory and relevant previous findings, and are defined both before and during the coding of the data. We used an iterative process (“feedback loops”; Mayring, 2010) to make sure that both the a priori determined and the inductively arrived at categories were reliable, that is, that they were a correct representation of the content of the materials.

Specifically, our approach was the following: We defined some categories (and codes) in advance, based on the theoretical and empirical foundations of our interview guide. For example, we asked about positive/negative aspects of maternity waiting homes (MWHs), because the poor quality of these facilities was mentioned as a barrier to utilize them in previous research (e.g., Sialubanje, 2015b). Chunks of text referring to this issue were coded as being part of the category “attitude towards MWH.” In addition to these a priori defined categories, additional categories were deduced, revised, and eventually reduced to the main. Finally, after carefully checking the categories against the text by thoroughly reading the interviews again and checking against the categories we deduced, the categories were ultimately grouped into the final themes, in this case, “psychosocial determinants of MHS utilization.”

Results

Theme 1: Psychosocial Determinants of MHS Utilization

Most expecting mothers stated that they intended to use MHS for child delivery. They received information about

delivery in the clinic during antenatal visits, and mentioned several personal determinants, which influenced their intention to use MHS. Awareness of the benefits of MHS and risk perception—in particular, their personal susceptibility to labor complications—were most often mentioned. Some respondents, including husbands, health workers, and community leaders indicated that some women had low-risk perception for those complications. The reasons given were a lack of knowledge about possible risks, faith in traditional medicine practices, or experiences with their own or a family member’s previous childbirths without complications.

People look at the way we used to live in the past and they are referring to their mothers and say “we are eleven [siblings] and my mum used to deliver at home, so there is no problem.” (Theater group member, female)

Moreover, some theater group members, nurses, and community leaders stated that some women do not intend to deliver at the MHS because of insufficient knowledge about the potential risks of delivering at home, or the benefits of delivering at the health facility to both mother and child. In general, a positive attitude was expressed toward MHS and MWHs—residential facilities located near MHS that provide accommodation for expecting mothers. However, some mothers expressed negative attitudes toward MHS, which were mainly related to the poor quality of the services, including the small size of MWH buildings, a lack of privacy, inadequate beds, a shortage of nurses, and congested labor wards. With regard to the MWHs, the respondents mentioned that food is not provided and is difficult to find nearby, and that some MWHs have problems with adequate electricity and water supply. However, some women also stated that in some MWHs, the rule is to bring your own blankets, mattresses, and food, which made the lack of these items “normal” and, as such, did not negatively influence their opinion.

Although a generally positive attitude emerged toward nurses, responses also suggested that there may be a distinction between “good” and “bad” nurses. Bad nurses are perceived as harsh, and are reported to shout at women during labor or when they do not bring required items such as baby clothes. One nurse mentioned she was aware of complaints by expecting mothers:

You find that they are complaining: “Maybe that nurse is not good, she beats you when you are in labor ward, pinches you or shouts at you when you don’t have enough baby clothes.” Some [women] prefer to go to a facility where they are welcomed by the nurses. (Nurse, female)

Similarly, attitudes toward TBAs differed; some respondents, mainly mothers, husbands, and community leaders, were positive: TBAs helped women get to the clinic, teach the community about the benefits of MHS,

and help out nurses at the maternity wards. Other respondents, including community leaders and nurses, were more negative and mentioned that especially unskilled TBAs only wanted money. One headman noted that women in his community preferred the clinic over TBAs, because he had experienced that the TBA sometimes would laugh at the living spaces of the women and talk behind their back when assisting a home delivery.

Villages differ with regard to community expectations about women's utilization of MHS. Some villages had a rule requiring women to deliver at the health center, and in those cases the community, especially the headmen, expect or encourage every woman to do so. In other villages, some people believed that women should not deliver at the MHS without bringing the items that nurses require. Some husbands and mothers complained that when they went to the health facility, nurses required the couple to take an HIV test, so that those found positive could receive treatment to protect the unborn baby. One husband noted,

When they come for antenatal the first time when they are pregnant, for them to have a card, they have to do an HIV test . . . Without the test, no card. You cannot deliver at the clinic without a card. (Husband)

Moreover, the opinions of important others, especially the family, were found to influence expecting mothers' decision to use MHS. According to the mothers and community leaders, the most important influence on such decision are the husbands, parents, and in-laws, who, in some cases, were found to oppose the pregnant women's health-seeking behavior and actively discouraged pregnant women from using the health facilities. These individuals were said to believe that women should not use the facility without the required items, because it would embarrass the family. Some husbands stated they thought women should stay at home to take care of the children or do household chores; some of the pregnant respondents agreed that this idea was supported by some older women in their families who think that women go to the MWH "to run away from household responsibilities." This lack of support from family members caused a lack of confidence to utilize the MHS, as some pregnant respondents reported. Additional barriers to performing this desired health behavior were a lack of transportation and a lack of finances to buy baby clothes or the other items nurses required them to bring. Not being able to afford these items influences behavior, as one mother explained:

What makes most women deliver at home, is the things the clinic wants: bleach, clothes for the baby . . . Some don't come because they are afraid [of the nurses]. Others come, even if they [nurses] shout at them, they just close their ears. (Expecting mother)

Respondents (pregnant women) who intended to utilize MWHs mentioned that one barrier they faced was that food was not provided in MWHs, and was difficult to find nearby. Additional barriers they mentioned were finding and paying for mattresses, carrying them to the facility, and the lack of electricity and water supply at the waiting homes. Despite these barriers, many pregnant women indicated they were overall positive about using the waiting homes: The main reasons they mentioned were support from their husbands, preparing everything in advance, a general sense of acceptance to make sacrifices and succeed, and a lack of alternatives.

Theme 2: Theater Groups and Performances in Kalomo District

We probed the theater group members about the current performances and theater groups in Kalomo District, and about their experiences and opinions about the perceived effectiveness of theater as a health promotion tool. The actors mentioned that theater groups consisted of approximately 10 members and that members did not follow any form of training; rather, any person interested could join them. To gain ideas and content for their performances, the theater group members observe the health problems and difficulties of the people in their communities—such as maternal health issues, HIV, and malaria. They also receive information from nurses and use theater as a tool to raise awareness and to teach about the observed health issues. One actor explained how they used the information they received from the health care workers:

We use different teaching methods, the things that they [expecting mothers] learn at the maternity on their first pregnancy when they come for antenatal care. The topics they [the nurses] teach, they are the ones we based our teaching on. (Theater group member, male)

After determining the general theme of the plays, the theater group members write stories and dialogues, and subsequently rehearse and perform the plays in health centers, churches, and villages. Usually, the plays are attended by women, couples, and youths; sometimes, they involve the whole community. One respondent stated that older people in the villages generally do not attend these performances, although it was seen as important for them to also attend.

The main themes in the theater plays about maternal health, the respondents mentioned, were the danger signs of pregnancy complications, family planning, risks of home delivery, MHS utilization, husbands refusing their wives' requests to visit the health center, and the prevention of mother-to-child transmission of HIV infection. One actor stated that they actively encourage women to deliver at the clinic:

The project we have is to encourage women to start antenatal visits early as possible and so to encourage them to deliver at the facility. We use them [theatre plays] so that they can learn how important it is to deliver at the clinic. (Theater group member, male)

Regarding the format of plays, the actors indicated that the approach differed for each theater group. For example, one group reported alternating narratives and acting, sometimes also involving dance performances. At the end of the performance, the audience members could ask questions about the maternal health issue central to the performance. Other actors reported that their theater group first performs the play, then explains the situation that they performed about, and then asks the audience what they had learned.

Regarding the storylines used in their plays, the actors mentioned that the main characters of the plays are usually couples, including expecting mothers, and sometimes nurses. Stories may begin with a problem experienced by an expecting mother or a couple, after which a solution is proposed and shown during the play. Conversely, sometimes two women or couples are shown, with one failing to perform the desired health behavior—for example, failing to undergo an HIV test during pregnancy—after which the negative consequences of this behavior are presented as well. This is an example of a storyline from a play previously performed by a theater group in Kalomo District:

There are two families: One was attending the antenatal care visits and the other was not attending. The, the family which was not attending, they didn't know that they were [HIV] positive. When it was time to deliver, that's when they knew it was too late: when the baby was born it died, because of they did not come for antenatal. If they had come, they would have prevented it [the baby] from contracting HIV. (Theater group member, female)

Theme 3: Theory-Based Methods and Theater Applications

Concerning the four behavior change methods, short storylines representing theater applications of the theory-based methods targeting these problems were presented to all the respondents (read aloud if necessary). The respondents were asked what they thought about them, and whether they thought these possible plays would be effective, and why. Their responses are presented below.

Method 1: Modeling

The respondents were generally positive about using the modeling method in theater plays. They suggested that, to be more effective, a role model should have similarities with the target population—in this case, pregnant

women—for example, with regard to age and having to overcome similar difficult obstacles. For example, one husband mentioned,

If the person is older, there is no way she can talk to the younger ones. So the character should have the same age . . . so they (the expecting mothers) are able to understand more how to solve problems. (Husband)

Furthermore, they suggested that a role model should be encouraging, teaching, or giving help and advice. Different role model storylines—containing either a positive or a negative role model—were presented to the respondents to investigate which type of role model would be preferred and deemed most effective by the respondents (see also Lockwood & Kunda, 1997).

A positive role model storyline with a pregnant woman as the main character was presented, in which the main character struggles to overcome barriers to utilize MHS, provided step-by-step solutions to overcome them, and ultimately succeeded. In addition, there were two storylines with negative role models, who highlighted either mistakes or negative outcomes of certain decisions. Particularly the pregnant women and their husbands preferred a positive role model, who was struggling but eventually overcoming difficult obstacles. They stated this would give them hope and encouragement, and a feeling they could succeed as well, as one pregnant woman mentioned,

This pregnant woman that I am going to watch in a play . . . she is going to show the strategies on how to overcome those obstacles; and not only that, this is going to encourage me, because I would like to follow the same steps as that woman. (Expecting mother)

However, some respondents preferred a negative role model, to become aware of the problems a pregnant woman might face and to learn how to prevent similar mistakes, or to explain the audience why home delivery can be dangerous. In particular, the nurses felt that a play with a negative role model and a sad ending could tell an important story about the risks of delivering at home.

Method 2: Taking/Shifting Perspectives

This behavior change method was explored mainly with regard to promoting more positive attitudes toward nurses/midwives. Suggestions that emerged included explaining the importance of nurses/midwives to the community and encouraging the pregnant women to develop positive relations with them. Another suggestion was to encourage the nurses to not be harsh with their clients. However, one nurse mentioned that, in some cases, such behavior occurs when nurses become overworked, making even a friendly, kind nurse exhausted.

Next, a theater play based on the “shifting perspective” method was presented by the researchers: A nurse is the main character, showing her positive aspects, the reality of her work from their perspective, including the difficulties nurses face every day in performing their job. This storyline was considered by most theater group members as well as the nurses to have the highest potential for increasing positive attitudes toward nurses, as they felt it could help the audience understand the importance of the nurses’ job in the community and the difficulties they face. One female actor suggested a possible scene:

[Make a story where] the clinical officer is not at the station, there is only a nurse. Then maybe they [the audience] see some people to be screened, maybe there is an emergency for antenatal at that side, maybe there is also an emergency in maternity that side. So people will know that one person . . . can’t handle [everything]. (Theater group member, female)

Method 3: Social Inoculation

Theater group members were asked for suggestions how to make women less susceptible to social pressures—from their husband or other family members—to deliver at home. They recommended encouraging women to understand that their life is their own, not someone else’s, and to discuss these issues with the person pressuring her. Some also suggested women should ask for help from a third person. One actor suggested that, in a play, they could show what could happen if a woman would go along with her husband every step of the way without objections:

Because whatever the husband says they would just say “yes.” Even when it’s in danger of their life they would say “yes.” So we need to teach them, so that they can know to say that they have rights to their lives. (Theater group member, female)

All the members from the theater groups agreed that a play based on the social inoculation method could help women to face and resist the social pressure from those trying to convince them to deliver at home. The storyline that was presented to them focused on the pressure and comments a pregnant woman might face from important others (e.g., husbands) if they choose not to deliver at home. The pregnant woman in the play then provides contra-argumentation for dealing with such pressure. The respondents indicated that such a storyline could encourage women, give them more confidence, or make them gain an understanding of how to deal with those pressures. The most commonly suggested solution was for the wife to use information learned from antenatal care (ANC) visits to explain to her husband or other family members all the risks and dangers the woman would face

in delivering at home, and of the importance of being assisted by skilled nurses. One expecting mother suggested a dialogue:

To win the argument, she can say to the husband: “Do you have everything that is required for safe delivery at the health facility? Or in case of complications, can you manage more than the hospital?” (Expecting mother)

Method 4: Narrative-Based Risk Information

Theater group members were asked for suggestions to help women more accurately perceive their susceptibility to childbirth risks and complications. The respondents generally advised to discourage women from relying on the fact that previous childbirths were successful, and to explain that they can still be affected by complications in the future, and to encourage clinical delivery. One actor stated,

It would teach the community not to relax when they are pregnant, but to be ready for anything. (Theater group member, male)

Other suggestions included sharing knowledge about the danger signs of possible labor complications they might face. Moreover, all theater group members were positive about the idea of a play representing risky situations concerning pregnancy and childbirth, intending to make women more aware of their susceptibility. Theater group members were also asked whether they thought pregnant women in the audience should be involved in the play, for example, by making suggestions about which risk situations the main character should face. Some members agreed, one theater group member even stated that their group already did something similar, sometimes asking the audience which sketch (storyline) they would like to see.

Discussion

The aims of the current research were twofold: first, to extend previous research conducted in Kalomo District (Sialubanje et al., 2014a, 2014b; Sialubanje, Massar, Hamer, & Ruiter, 2015; Sialubanje, Massar, van der Pijl, et al., 2015) to understand women’s intention to utilize MHS, and second, to examine opinions about the use and feasibility of a theater-based intervention to encourage such MHS utilization in this district. To this end, we conducted 44 interviews with various stakeholders in this district (see also Bartholomew Eldredge et al., 2016).

Factors Influencing MHS Utilization

In line with results reported by Sialubanje et al. (2014a, 2014b), five key personal determinants for MHS utilization were identified in the current interviews: risk

perception, knowledge, attitude, social norms, and perceived behavioral control. Interestingly, although the research conducted by Sialubanje et al. indicated that lack of knowledge was not a factor that negatively influenced MHS utilization among pregnant women in Kalomo District, in the current research, some respondents indicated that women in their communities have insufficient knowledge about, for example, the severity of complications during pregnancy or delivery. Indeed, respondents mentioned women's low perceived susceptibility to labor complications as a factor inhibiting the use of MHS. This is in line with research by Hinsermu, Mulatu, Abdella, and Mulunesh (2015), who also report that a low perceived susceptibility and misperceptions of the severity of pregnancy and delivery complications influenced Ethiopian women's utilization of institutional health services for childbirth.

Moreover, our respondents mentioned that a negative attitude toward (some) nurses influenced women's MHS use. This was also reported by Sialubanje et al. (2014b): A perception of "unfriendly" or "harsh" nurses can elicit feelings of fear, and causes avoidance of certain health facilities. Similar issues—negative attitudes toward health care workers or a lack of trust in their competence—were reported by Mrisho et al. (2007) about MHS utilization in rural Tanzania and Sripad et al. (2018) about maternity care in peri-urban Kenya. In addition, replicating Sialubanje, Massar, Hamer, and Ruiter (2015), in the current research, the opinions of important others, especially the husband and family, were found to influence an expecting mother's choice to use MHS. Respondents indicated that if a husband objected to a woman delivering at a health center or staying at an MWH, the woman did not go. Similarly, Mpembeni et al. (2007) report a positive association between the use of skilled care during delivery and women's previous discussions with their male partner regarding the delivery location. Finally, our findings confirm the physical and socioeconomic challenges pregnant women face. ANC visits and delivery at health care centers are negatively affected by long distances, lack of transportation, lack of finances to purchase the items required by the nurses, and poor infrastructure.

Theater as a Health Promotion Tool

In rural Zambia (including Kalomo District), drama and theater performances are regularly used as a tool to encourage awareness of and teach about several health issues, including maternal health. Indeed, participatory theater has established itself as a way to actively involve the target group in health education efforts (e.g., Boal, 1995; Fredland, 2010), and its application to maternal health promotion is promising and, to some extent, is already used by the local theater groups. The respondents

in the current research indicated that the theater groups base their plays on the problems and difficulties they observe in their communities. Furthermore, they indicated that they try to align their performances with the issues the nurses talk about with expecting mothers and fathers during the (antenatal) visits to the clinic.

During the interviews, respondents were presented with different storylines, which incorporated one of four behavior change methods, which have been found effective in the health promotion literature (Bartholomew Eldredge et al., 2016). With respect to modeling, the respondents generally preferred storylines with a character representing a positive role model, who highlighted strategies to overcome the various barriers pregnant women face. Furthermore, respondents suggested that the main character of the play should have similarities with the audience members—in particular, the pregnant women—especially with regard to age and types of obstacles to overcome. This is in line with what previous research has suggested: An individual should be able to imagine a future self by identifying with the role model to be inspired, and this is most likely when the role model is similar and her achievements or performance is seen as attainable (Bartholomew Eldredge et al., 2016; Kok et al., 2016; Lockwood & Kunda, 1997).

A theater play that incorporated the taking/shifting perspective method was considered to have the potential for increasing positive attitudes toward nurses by showing their high workload and stressful job situation. This is in line with research by Chung and Slater (2013), who showed that narratives have the possibility of reducing stigmatizing reactions toward out-group members through perspective taking. Regarding social inoculation, respondents generally agreed that it is useful for audience members to have examples on how to deal with social pressures from their community, in particular, the husbands, by showing dialogues between couples in which delivery at the clinic is discussed. These responses fit in with the idea that presenting both arguments *and* counterarguments can "inoculate" audience members against harmful attitudes, thereby creating resistance to such persuasive efforts by close others (e.g., McGuire, 1964).

Concerning the use of theater to increase risk perceptions among the audience members, in particular, the expecting mothers, theater group members were positive about the use of plays to make women more aware of their susceptibility to potential labor complications. Some theater groups allowed pregnant women in the audience to suggest possible stories, such as scenes involving labor complications, and actors improvised based on audience suggestions. Such self-constructed narratives have the potential to be more effective than prefabricated storylines (see, for example, Mevissen, Meertens, Ruiter, & Schaalma, 2012).

Limitations and Suggestions

Some limitations of the current research should be mentioned. First, all respondents were recruited and interviewed in or near health care centers, and lived in villages located (relatively) close to these health care centers. These factors may have biased our respondents' answers, particularly with regard to attitudes toward MHS utilization and nurses. Indeed, this may also be the reason why all expecting mothers we interviewed reported a high intention to deliver at the health center. Future research should attempt to overcome barriers such as long distances and poor infrastructure to reach respondents in remote areas. Related, a larger area of Kalomo District should be sampled, so that all voices in the area might be represented, and a more balanced picture of women's considerations in using facility-based health services may emerge.

An additional limitation was that this research was conducted by a research team consisting largely of outsiders to the local community (Muhammed et al., 2015). In addition to the fact that the respondents' answers were often translated, this positionality could have biased respondents' answers. For example, there were natural limitations in translating and reporting exact meanings between Tonga and English, and the translators' skill and interpretations could have biased the results. Furthermore, we used several translators, which may have caused variance in interpretations and translations between the different interviews. However, care was taken to correctly record the answers of the respondents by repeatedly affirming if the translation conveyed what the interviewee wanted to say, for example, by summarizing and rephrasing, and asking for confirmation. Furthermore, the theater group members we interviewed could have responded in a socially desirable or overly optimistic manner, because they were essentially evaluating their own activities. However, we presented the storylines not only to these respondents but also to all other respondents, and the opinions of these two groups did not differ with regard to the usefulness of incorporating these various behavior change methods in theater performances. A final limitation of the current research, and suggestion for future researchers, is that, here, we solely rely on interviews; our results could have been strengthened by the inclusion of other types of data. For example, it would be interesting to perform observational research during actual theater performances, to study the audience members' responses to the content of the performance (the narratives) and the interaction with the performers, as well as the performers' reactions to audience participation. In addition, our results could have been enriched by including observations during the production of theater plays in the district, starting at the conception of narratives through to the actual performances.

Finally, we want to stress that the current research was not aimed at investigating the effectiveness of theater as a means to deliver health education. Rather, the aim was to investigate the *perceived* effectiveness of such health promotion applications, and to investigate whether both prospective audience members—pregnant women, their husbands, and important community members—and prospective performers—the theater group members—could see the value of using theater as a means to deliver maternal health promotion information.

Conclusion

The current study extends the research about maternal health care utilization in Kalomo District, and shows that in addition to physical barriers such as long distances and a lack of finances, negative attitudes, low-risk perceptions, and low perceived behavioral control influence decisions to deliver at a health clinic. Furthermore, this research illustrates that theater performances might be a feasible way to provide health education, by incorporating various theory-based behavior change methods. The next step in this research is to design and test an intervention based on theater, and which incorporates the four behavior change methods described above. Using a controlled design, one could then investigate whether audience members exposed to such a play are more likely to deliver in a health care facility than women who have not seen such a play. To conclude, as mentioned in the introduction, the strength of theater lies in the fact that live audiences are usually more emotionally attuned and involved with the narrative and the performers. Therefore, we argue that health education messages targeted specifically to the lived experiences of—and developed with—audience members could be more effective in achieving behavior change than health messages delivered via mass media or during health care consultations.

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Irene Maltagliati is now at the Department of Psychology, University of Groningen, Groningen, The Netherlands. Ethical approval for the study was granted by the Tropical Diseases Research Center Ethics Review Committee and the Ministry of Health Research and Ethics Committee in Zambia (study number TDR/ERC/2005/29/12).

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Notes

1. An overview of the demographic data of all respondents can be found in the supplemental material.
2. The full interview protocols can be found in the supplemental material.

Supplementary Material

Supplemental material for this article is available online at journals.sagepub.com/home/qhr. Please enter the article's DOI, located at the top right-hand corner of this article in the search bar, and click on the file folder icon to view.

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